## **Abstract of the Disclosure**

The invention relates to a method for renovating a combined system consisting of a blast furnace supplied with an oxidant fluid received at least partly from an air/gas separation unit (ASU). The inventive method consists in injecting, before renovation, at least 50 % of the flow rate of the blower feeding the blast furnace into an air/gas cryogenic separation unit in order to produce oxygen whose purity is greater than 90 % by volume of O2 which feeds the blast furnace, in controlling the blower airflow rate and the pressure of the air derived therefrom by means of a regulator which measures said flow rate and/or pressure at the input and/or output of a cleaning stage which is mounted upstream of the separation unit in such a way that the flow rate and pressure of the air derived from the blower is controlled. The fluid feeding the blast furnace consists of pure oxygen or diluted by air produced by the cryogenic separation unit.